

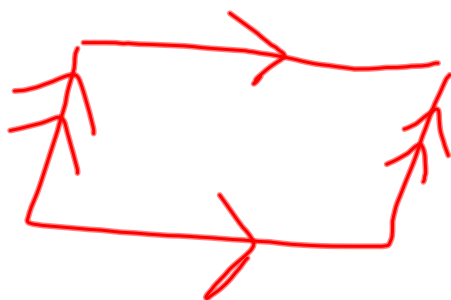
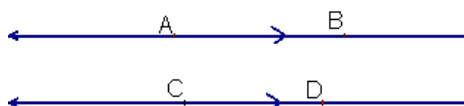
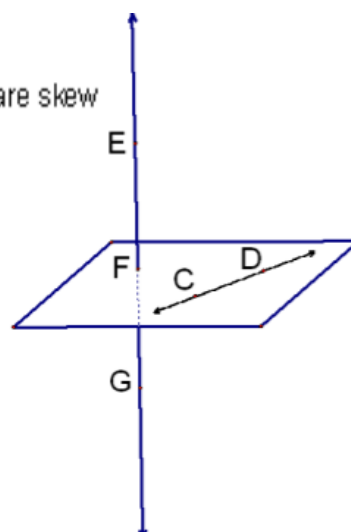
## Chapter 3 Parallel and Perpendicular Lines

### 3-1 Parallel lines and transversals

Oct 23-11:34 AM

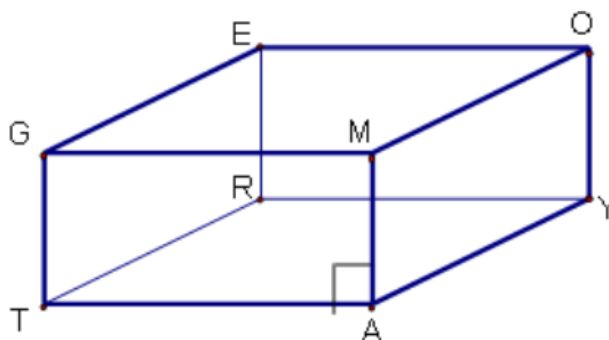
Parallel lines ( $\parallel$ )-coplanar lines that do not intersect

Skew lines -lines that do not intersect and are not coplanar

 $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$ 

 $\overleftrightarrow{CD}$  and  $\overleftrightarrow{FG}$  are skew


Oct 23-11:36 AM

Parallel planes-planes that do not intersect



plane EGM  $\parallel$  plane RTA

Oct 23-11:33 AM

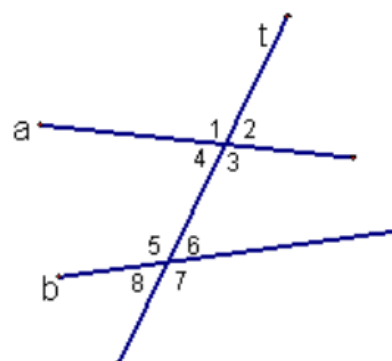
Transversal--a line that intersects 2 or more coplanar lines at different points

interior angles

$\angle 3, \angle 4, \angle 5, \angle 6$

exterior angles

$\angle 1, \angle 2, \angle 7, \angle 8$



Oct 23-11:34 AM

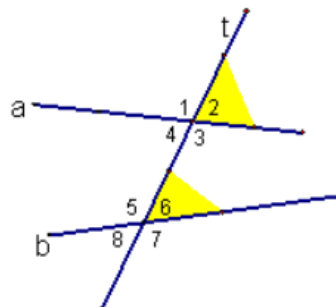
Corresponding Angles

-two angles that occupy corresponding positions.

$$\angle 2 \leftrightarrow \angle 6$$

$$\angle 1 \leftrightarrow \angle 5$$

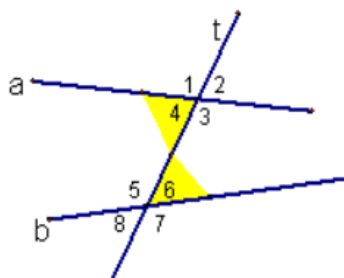
$$\angle 4 \leftrightarrow \angle 8 \quad \angle 3 \leftrightarrow \angle 7$$

Alternate interior angles

-two angles that lie between the two lines and are on opposite sides of the transversal.

$$\angle 4 \leftrightarrow \angle 6$$

$$\angle 3 \leftrightarrow \angle 5$$



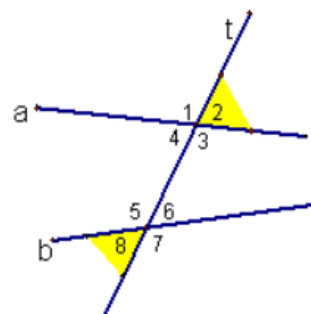
Oct 23-11:34 AM

Alternate exterior angles

-two angles that are on the outside of the two lines ; are on opposite sides of the transversal.

$$\angle 2 \leftrightarrow \angle 8$$

$$\angle 1 \leftrightarrow \angle 7$$

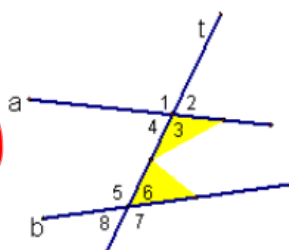
Same-side interior angles

-two angles that lie between the two line are on the same side of the transversal.

$$\angle 3 \leftrightarrow \angle 6$$

$$\angle 4 \leftrightarrow \angle 5$$

(consecutive int.  $\angle$ s)



Oct 24-10:23 AM

Open books to page 128

Oct 23-11:43 AM

2. **FIND THE ERROR** Juanita and Eric are naming alternate interior angles in the figure at the right. One of the angles must be  $\angle 4$ .

Juanita

$\angle 4$  and  $\angle 9$

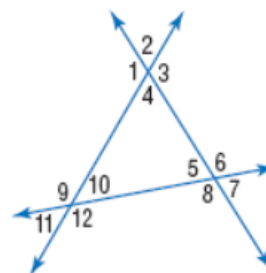
$\angle 4$  and  $\angle 6$

Eric

$\angle 4$  and  $\angle 10$

$\angle 4$  and  $\angle 5$

Who is correct? Explain your reasoning.



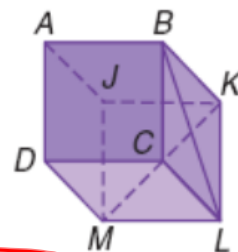
Nov 9-7:10 AM

For Exercises 4–6, refer to the figure at the right.

4. Name all planes that intersect plane  $ADM$ .

5. Name all segments that are parallel to  $\overline{CD}$ .

6. Name all segments that intersect  $\overline{KL}$ .



4.  $KJA$   $ABC$   $DMJ$   $JML$

5.  $\overline{AB}$   $\overline{LM}$   $\overline{JK}$

6.  $\overline{MK}$   $\overline{ML}$   $\overline{BL}$   $\overline{JK}$   $\overline{CL}$   $\overline{BK}$

Nov 9-7:10 AM

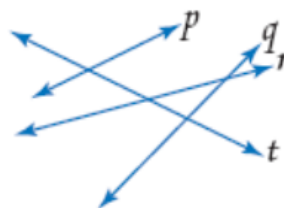
Identify the pairs of lines to which each given line is a transversal.

7.  $p$

8.  $r$

9.  $q$

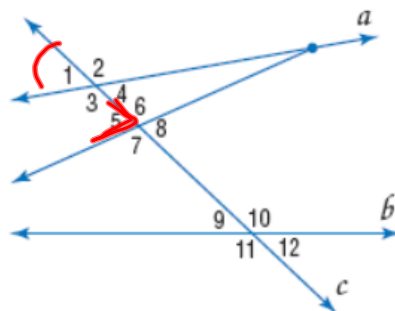
10.  $t$



Nov 9-7:10 AM

Identify each pair of angles as *alternate interior*, *alternate exterior*, *corresponding*, or *consecutive interior* angles.

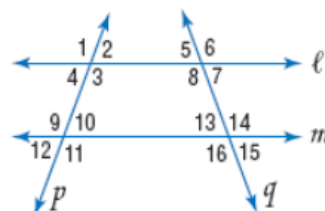
11.  $\angle 7$  and  $\angle 10$  alt. int
12.  $\angle 1$  and  $\angle 5$  corr.
13.  $\angle 4$  and  $\angle 6$  cons. int
14.  $\angle 8$  and  $\angle 1$  alt. ext



Nov 9-7:10 AM

Name the transversal that forms each pair of angles. Then identify the special name for the angle pair.

15.  $\angle 3$  and  $\angle 10$
16.  $\angle 2$  and  $\angle 12$
17.  $\angle 8$  and  $\angle 14$



Nov 9-7:10 AM

HW  
p129-130  
22-27, 32-47

Oct 24-10:25 AM